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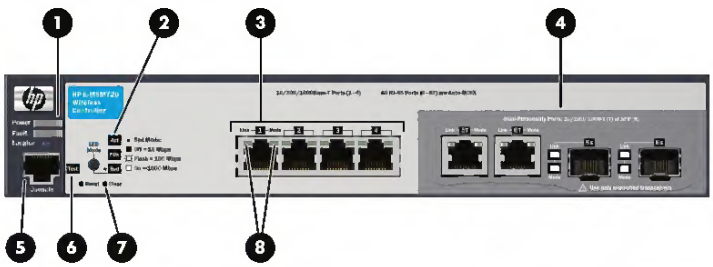
HP MSM720 Controllers Quickstart

This Quickstart shows you how to install the MSM720 Controllers. This information applies to the MSM720 Access Controller (J9693A, J9695A) and the MSM720 Premium Mobility Controller (J9694A, J9696A). These products are hereatter referred to as controller. The controller works with HP access points to deliver a high-performance networking solution. For additional installation information, and instructions on how to initially contigure the controller, see the *HP MSM720 Controllers Installation Guide*, available at www.hp.com/support/manuals.

Hardware overview



MSM720 front panel

1: Power, Fault, and Locator LEDs
2: LED Mode select button and Mode Indicator LEDs
3: Four 10/100/1000 access network ports
4: Two dual-personality Internet network ports
5: Console port
6: Test LED
7: Reset and Clear buttons
8: Port LEDs: Link (left) and Mode (right)

Package contents

Controller, power adapter and cord, console cable, four mounting brackets, eight bracket screws, four rubber feet, and documentation.

LEDs

There are three types of LEDs: Status LEDs (labeled 1 and 6 in the graphic), Port LEDs (8), and Port LED Mode indicators (2).

Reset and Clear buttons

The Reset and Clear buttons are accessible (with a paper clip) on the controller front panel (labeled 7 in the image to the left).

- To reset the controller, either power cycle it or press and release the Reset button.
- To reset the controller to factory defaults, press and quickly release the Reset button, and then immediately press and hold the Clear button until the LEDs above the Clear button flash three times.

Ports

Controller console port: A standard serial port with an RF-45 connector. To connect to a computer, use the supplied DB-9 to RJ-45 console cable.

Access network: Four auto-sensing 10/100/1000 Base-T ports with the Auto-MDX feature. You can use either straight-through or crossover twisted-pair cables to connect network devices to the controller.

Internet network: Two dual personality ports for either 10/100/1000 Base-T RJ-45(Auto-MDX) uplinks or optional SFP slots for fibre uplinks.

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Important information to read before installing

Country of use: Some versions of the controller require the installer to select the country of operation during set up. When the country is set, the unit automatically limits the available wireless channels, ensuring compliant operation in the selected country. Incorrectly entering the country can result in illegal operation and can cause harmful interference to other systems.

Safety: Static electricity can severely damage the electronic components on the controller. When handling and installing the controller, follow these procedures to avoid damage from static electricity:

- Handle the controller by its bulkhead or edges, and avoid touching the components and the circuitry on the board.
- When installing the controller, equalize any static charge difference between your body and the switch by wearing a grounding wrist strap and attaching it to the metal body of the switch, or by frequently touching the metal body of the switch.
- For safe operation, proper switch cooling, and reduction of electromagnetic emissions, ensure that a slot cover is installed on any unused controller slot. For safety, no more than one slot should be uncovered at a time when the switch is powered on.

Specifications

Environmental Temperature	Operating: 0°C to 45°C (32°F to 113°F) Non-operating: -40°C to 70°C (-40°F to 158°F)
Humidity (non-condensing)	Operating: 15% to 90% at 40°C (104°F)[a] Non-operating: 15% to 90% at 65°C (149°F)[b]
Maximum altitude	Operating: 3.0 km (10,000 ft) Non-operating: 4.6 km (15,000 ft)
Physical Dimensions	H: 4.4 cm (1.73 in), W: 25.4 cm (10 in), D: 16.5 cm (6.5 in)
Weight	0.91 kg (2.25 lb)
Safety standards	UL 60950-1; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1
EMC: Class A standards	EN 55022; EN 55024; EN 61000-3-2 +A1, +A2; EN 61000-3-3; FCC CFR 47 Part 15

a. The SSD has a maximum operational wet bulb temperature of 35°C (95°F).
b. The SSD has a maximum non-operational wet bulb temperature of 40°C (104°F).

Installation

Prepare the installation site:

Cabling infrastructure: Ensure the cabling infrastructure meets the network specifications.

Installation location: Before installing the controller, plan its location relative to other devices and equipment, and consider the following:

- The front of the controller requires at least 7.6 cm (3 inches) of space for the twisted-pair cabling.
- The back of the controller requires at least 3.8 cm (1.5 inches) of space for the power cord.
- The sides of the controller require at least 7.6 cm (3 inches) of space for cooling.
- Although the brackets are designed to allow a device to be mounted in a variety of locations and orientations, when installing in a rack or cabinet, you must install the controller horizontally.

Verify that the controller passes self-test

The controller does not have a power switch. It is powered on when the external AC/DC power adapter is connected to the controller and the adapter power cord is connected to a power source.

Caution: Use only the AC/DC power adapter and power cord supplied with the controller. Using other adapters or power cords can result in damage to the equipment.

Before installing the controller in its network location:

1. Connect the AC/DC adapter power cord to the power connector on the back of the controller, and then plug the AC/DC power adapter into a properly grounded electrical outlet.
2. Observe the LEDs to verify that the controller passes its self-test:
   - Initially, all controller and port LEDs are on.
   - For the duration of the self-test, the Test LED stays on.
   - Most of the LEDs turn off and they may turn on again during phases of the self-test.
3. When the self-test completes successfully, the power LED is on, the fault, test, and locator LEDs are off, the activity LED is on, and the port LEDs are in operational mode.

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Installing the controller

The controller can be installed in a rack or cabinet, on a wall, or on a shelf or tabletop. It is shipped with an accessory kit that includes brackets for installation in a standard 19-inch telco rack or an equipment cabinet, and rubber feet for horizontal surface installation.

Rack or cabinet installation

The controller can be mounted in any EIA-standard 19-inch telco rack or communication equipment cabinet.

Important equipment cabinet note: The four 12-24 screws supplied with the controller have the correct threading for standard EIA/TIA open 19-inch racks. If you are installing the controller in an equipment cabinet, use the clips and screws that came with the cabinet instead of the 12-24 screws that are supplied with the controller. Before performing the following procedure, determine which four cabinet holes you will use and install all four clips.

Note: Optional accessories must be mounted at the same time as the mounting brackets. For more information, see the *MSM720 Controllers Installation Guide*.

This procedure assumes a rack installation:

1. Use the supplied 8-mm M4 screws to attach the mounting brackets to the controller.

2. Hold the controller with attached brackets up to the rack and move it vertically until the bracket holes line up with the rack holes, then insert and tighten four number 12-24 screws to secure the brackets to the rack.

Wall installation

Caution: The network ports must be facing up. Do not mount the controller with ports facing down.

The controller should be mounted on a wall or wood surface that is at least 12.7 mm (0.5 inch) plywood or its equivalent.

1. Use the supplied 8-mm M4 screws to attach the mounting brackets to the controller.
2. Use two 15.9 mm (5/8 inch) wood screws (not included) to attach the controller to the wall.

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Horizontal surface installation

Attach the supplied rubber feet to the four corners on the bottom of the controller within the embossed angled lines. Place the controller on a table or other sturdy horizontal surface in an uncluttered area. Secure the networking cables and power cord to a table leg or other part of the surface structure.

LEDs

Status LEDs

LED	State	Meaning
Power (green)	On	The controller is powered on.
	Off	The controller is not receiving power.
Fault (orange)	On	The controller is beginning its boot sequence. On for three seconds at power up or reset.
Locator (blue)	On	The `services <slot-id> locator on` command was issued to assist in finding the module.
	Flashing	The `services <slot-id> locator blink` command was issued to assist in finding the module.
	Off	Oefault state. Otherwise, the `services <slot-id> locator off` command was issued or a previous flash request has timed out.
Test (green)	Flashing	The SSO is active.
	Off	The SSO is not active.

Port LEDs

The SFP slots are shared with 10/100/1000 Base-T RJ-45 ports. When an SFP transceiver is installed in a slot, the associated RJ-45 port is disabled and cannot be used.

LED	State	Meaning
RJ-45 ports		
Link (green)	On	The port is enabled and linked to the connected device.
	Off	One of these condition exists: • No active network cable is connected to the port • The port is not receiving a link indication or sufficient light • The port has been disabled through the controller console, the web browser interface, HP Manager, or other network management tool
Mode (green)		Indicates Activity, Ouplex, or Speed according to Mode selected.
SFP ports		
Link (green)	Flashing	• The software does not support the SFP transceiver • The controller does not support this SFP transceiver For a list of supported SFPs see the *MSM720 Controllers Installation Guide*.
Link and Mode (green)	On for 2 seconds	Both Link and Mode turn on for two seconds and then go into operational state to indicate that the controller recognizes the SFP transceiver.

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Port Mode LED

The Port Mode LED shows network activity (Act), full duplex mode (FDx), or Speed (Spd). If the Port Mode LED is off, the port is operating at 10 Mbps. if the Port Mode LED is flashing, the port is operating at 100 Mbps. If the Port Mode LED is on continuously, the port is operating at 1000 Mbps.

Press the LED Mode Select button to sequence through the three modes.

Regulatory information

For important information, see the *Safety, Compliance, and Warranty Information* that shipped with your controller. Also see *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products*, available at www.hp.com/support/Safety-Compliance-EnterpriseProducts.

FCC Class A Notice

Contains FCC ID: B94MRLBB1301

Operation is subject to the following two conditions: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. Operation of this equipment in a residential area may cause interference in which case the user will be required to correct the interference at their own expense.

Belarus Kazakhstan Russia marking

EAC

Manufacturer and Local Representative Information

Manufacturer's information:

- Hewlett-Packard Company, 3000 Hanover Street, Palo Alto, California 94304, U.S.

Local Representative information Russian:

- HP Belarus: ИООО «Хьюлетт-Паккард Бел», 220030, Беларусь, г. Минск, ул. Интернациональная, 36-1, офис 722-723, тел.: +375 (17) 392 28 18, факс: +375 (17) 392 2821
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- HP Russia: ЗАО "Хьюлетт-Паккард А.О.", 125171, Россия, г. Москва, Ленинградскоешоссе, 16А, стр.3, тел/факс: +7 (495) 797 3500, +7 (495) 287 89 05

Local Representative information Kazakh:

- HP Kazakhstan: ЖШС «Хьюлетт-Паккард (К)», Қазақстан, Алматы қ., Бостандық ауданы, Тимирязев к-сі, 28В, тел./факс: +7 (727) 35535 50, +7 (727) 355 35 51

Manufacturing Date – The manufacturing date is included in the product serial number, **CCYMPPPZZZ** (HP serial number format for this product). The manufacturing date is indicated by **YM** in the serial number, where **Y** indicates the year counting from within each new decade, with 2010 as the starting point, and **M** is the month when the unit was manufactured. For example, **3A** would indicate **3** for 2013 and **A** for the month of November. Following this convention, 2010 is indicated by **0**, 2011 by **1**, 2012 by **2**, 2013 by **3**, and so forth. Months start at **1** for January, **2** for February, up to **9** for September. **0** (zero) is used for October, **A** for November, and **B** for December.

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Дата изготовления – Дата изготовления включена в серийный номер изделия, **CCYMPPPZZZ** (формат серийного номера HP для данного изделия). Дата изготовления указана как **YM** в серийном номере, где **Y** соответствует году с началом отсчета в каждом новом десятилетии, начиная с 2010, а **M** соответствует месяцу изготовления устройства. Например, в обозначении **3A** цифра **3** соответствует 2013 году, а **A** обозначает ноябрь. В соответствии с данным принятым обозначением, 2010 год указывается как **0**, 2011 – как **1**, 2012 – как **2**, 2013 – как **3** и т. д. Месяцы обозначаются как **1** (январь), **2** (февраль) и т. д. до **9** (сентябрь). **0** (ноль) обозначает октябрь, **A** обозначает ноябрь, а **B** обозначает декабрь.

Жасалған күні – Жасалған күні **CCYMPPPZZZ** (осы өнімге арналған HP сериялық нөмірінің пішімі) пішіміндегі өнімнің сериялық нөмірінде қамтылады. Жасалған күні сериялық нөмірдегі **YM** а ріптерімен көрсетіледі. **Y** а рпі 2010 жылдан басталатын ж а не а р он жылдан бастап есептелетін жылды көрсетеді ж а не **M** а рпі құрылғының жасалған айын білдіреді. Мысалы, **3A** таңбалары келісіні білдіреді: **3** – 2013 жылды ж а не **A** қараша айын көрсетеді. Бұл а діс бойынша, 2010 жыл **0** санымен, 2011 жыл **1** санымен, 2012 жыл **2** санымен, 2013 жыл **3** санымен ж а не т.т. көрсетіледі. Айларды **1** мен **9** аралығындағы сандар көрсетеді:**1** саны қаңтар айы үшін, **2** саны ақпан айы үшін ж а не **9** саны қыркүйек айы үшін. **0** (нөл) саны қазан айы үшін, **A** а рпі қараша айы үшін ж а не **B** а рпі желтоқсан айы үшін қолданылады.

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